The JOURNAL *of* GEOGRAPHY

Copyright 1943, by the National Council of Geography Teachers

VOLUME XLII JANUARY, 1943 NUMBER 1

THE PLACE OF GEOGRAPHY IN THE SOCIAL STUDIES FOR ORIENTATION IN A WORLD OF CHANGING NATIONAL BOUNDARIES

DERWENT WHITTLESEY
Harvard University

"What happens to geography when the political map changes so fast you can't keep up with it?" Some form of this question has been put to every geographer during the two years in which dozens of boundaries have been obliterated or shifted. Very often it is asked by colleagues in the social studies program, who assume that alterations on the political map seriously affect geography.

On the contrary, such changes only emphasize a basic contribution of geography to the social studies program, *viz.*, the presentation of the earth as the sole stable element in human society. This stability is not expressed by boundaries, but by the areas contained within them. Political units may be changed in size or erased by moving their boundaries, but the geographic regions of which they are composed are not thereby destroyed. Instead, each of these regions continues to carry on its own economic, social, and political life, and its individual history. Thus it stands as a fixed base for the study of effects of boundary changes.

THE COHESIVENESS OF GEOGRAPHIC REGIONS

The geographer views the earth as a mosaic of regions. These may be large or small, but every region is marked by a twofold unity. Its physical nature is broadly uniform and the mode of life practiced by its inhabitants is coherent thruout the area. The degree of unity varies with the magnitude of the region. Our South possesses recognizable regional coherence, but within it are many lesser regions of almost unvarying landscape and life. Such a place is the Yazoo Cotton District. Frequently an earmark of a region is linguistic or dialectic unity. A common way of speech is likely to create a consensus of feeling and thinking about the region. This com-

munity of feeling may coincide with nationality or with sub-nationality. Sweden is a nation-language unit; Ukraine is a province-dialect unit.

Nations and provinces are fashioned out of lesser units—the building stones of modern national states. They may be survivals of primitive transportation and of dividing zones of wilderness, or they may be units of recent origin, set apart by marked distinctiveness in natural environment. Each may have a dialect or even a language of its own. They are the "little countries" (*petits pays*) in which regional unity finds its clearest expression.

The "little country" displays tenacious vitality. In old lands it survives centuries of political eclipse and decades of economic engulfment. Brittany and Slovenia are examples. In new countries it grows up even where transportation is facile. Such are the neighborhoods celebrated in our American regional novels—the backwoods of Florida, a valley in California, the wheatlands of Dakota. It is indivisible or indestructible except by overwhelming political force, such as can be exerted by powerful national states. Even then it lies submerged, rather than destroyed. Examples include African groups veneered with a European type of political and social organization, but retaining their tribal society *sub-rosa;* the French who think of themselves as Normans or other provincials, referring to political units swept away by the French Revolution.

A "little country" lying in a border zone between national states may be shifted back and forth or divided. Its boundaries are changed, its relations to its neighbors alter, but it stands fast, presenting a landscape differentiating it from its neighbors. Such is the Basque country, divided betweeen France and Spain.

Any "little country" is a piece of the earth, and its boundaries are demarcations on the surface of the earth. Such an area is therefore a natural topic for geographic study.

The Geographic Region in the Social Disciplines

Geographers are well aware that the region is the surest element of stability in a program of "social studies." Its contribution to the program is therefore as useful in a world in political, social, and economic flux like the present as in normal times. Indeed it is the business of geographers to view human society against a background of the only stable foundation it has, *viz.* the earth. This involves, primarily, the evaluation of areas and, secondarily, study of their boundaries.

Each change in political boundaries touches every discipline in the social studies.

Such a change is *history* in the making. The geographer can vitalize this current history by visualizing the new boundary and contrasting its character, both as to natural environment and cultural environment, with that of the old line, and by showing the effects of the change on the geographic regions on both sides of the boundaries.

The line changed is a *political* feature. The terrain it traverses has military significance. The problem of demarcation (*i.e.* marking on the ground) must be solved. The people affected by the shift of line have to adapt themselves to the new central authority in manner of voting, in taxation, in local government. Adjustment to laws applying to the nation as a whole have to be made in the area shifted to a new sovereignty.

Economic readjustments must be made. Transportation across both the old and the new boundary lines is dislocated by the shift. The financial structure, including the currency used, changes at the boundary. Trade relations in the immediate vicinity are changed, and some commodities formerly produced have to give way to others to satisfy new markets.

The *sociological* structure of life is affected: directly, as in laws governing religion and school systems; indirectly, as in affiliation with a political unit where a different language is spoken, or in submersion of a social minority.

ALSACE AS A REPRESENTATIVE EXAMPLE OF BOUNDARY CHANGE

Alsace may serve as an illustration of geography's contribution to social studies in a world in flux. Historically Alsace is a "little country" that has been alternately and repeatedly part of France, part of Germany, or part of an independent buffer state. In all these changes the region has maintained the integrity characteristic of a "little country." Bounded by the Rhine River, the Vosges Mountains, the Jura Mountains, and the Hill-land of Lorraine, it has always been a transit area. The Rhine has borne the great interregional traffic, but it lies along the edge of Alsace, and is separated from the heart of the region by marshes. The major part of the region occupies the flat floor of a rift valley. It is closely knit by roads, especially a longitudinal highway, route of traders, but more especially of armies. The Gap of Belfort (between Vosges and Jura), and the Gate of Lorraine (north of the Vosges),

are the main crossovers from Alsace to the West. A low pass in the northern Vosges accounts for Strassburg's location opposite it on the navigable Ill River, a local Alsacian tributary of the Rhine. All the leading historical events of the area have resulted from its value as a transit land. Imperial Romans, Hohenstauffen Emperors, Charles the Bold and his Burgundy, the boundary shifts of 1871 and 1919, are among associations of the region with general European history. Incidentally Alsace is excellent farm country, except along its marshy eastern border, and so a valuable source of food. It also has a rich resource of potash, but this was not known until the later 19th century, and has figured only in the latest political changes.

The eastern and western political boundaries of Alsace have invariably followed the Rhine and the Vosges respectively. At north and south the lines are somewhat arbitrary, but there the areas involved are small. Nevertheless, the connections westward thru the Lorraine Gate and the Gap of Belfort are critical. Generally these gateways have been politically distinct from Alsace.

Alsace, thus defined, has been frequently shifted from one political allegiance to another. In these changes the utility of the riverline boundary as compared to the mountain crest boundary is critical.

The Vosges Mountains constitute an obvious barrier boundary. Their eastern flank is a steep fault scarp. Yet the barrier is incomplete. An armed force on the crests overlooks the lowlands and commands it in the military sense. This has made the plain untenable without the controlling mountains. Also several easy passes reduce the barrier quality of the range. One, indeed, is so low that a canal passes thru it.

The Rhine is a routeway and therefore tends to throw dwellers on the two banks into enforced unity. Furthermore, the two long, narrow strips of flat land on either side of the stream are part of a single rift valley. However, on the Alsacian bank a wide zone reaching almost to the Ill River is marshy and useless for cultivation. Even when drained it is infertile, and so has been left largely in woods. The Rhine riverline is therefore more suitable as a political boundary than is commonly the case with streams.

While Alsace benefits from no satisfactory boundary given by nature, either of the naturally marked lines has points in its favor. Demarcating the line, however, is easier in one case than the other. Along the mountain range markers can easily be erected on the

gentle-topped crests. In the river neither the center of the channel nor the shoreline remains fixed. Nevertheless, in view of the marsh west of the Rhine, mean low water on its west bank probably makes the most suitable political boundary.

The days when Alsace could be independent, even when joined with additional territory along the Rhine, are gone, so long as fast transportation exists. A middle-zone state has never lasted long, even in days of slow transportation. The region must accept either the German or the French political system and outlook. Because of their history, the Alsacians appear to have preferred the French nationality, despite their Germanic mother tongue.

Economic readjustments are enforced upon Alsace with each shift in the boundary. Farming, the basic business of the region because of flat land and deep alluvial soils, provides products useful to either nation to which the "little country" may be annexed. Perhaps most of them are more needed by manufactural Germany than by rural France. The most famous export crop of the region, fat goose liver, from geese raised on the marshes, is made into *pâté de foie gras* when Alsace is French, and cut into slices when Alsace is German. The wine from the Vosges flank is more valuable to Germany than to France, because it is rather poor wine by French standards, and Germany has not enough even of that grade. The dairy and pork products are more valuable to France than to Germany, which raises cattle and hogs thruout its cool, moist countryside. The one principal mineral, potash, is much needed by France, and not at all by Germany, which has elsewhere the largest potash deposit known.

The total amount of external trade and of traffic moving thru the region does not greatly alter, whichever neighbor Alsace is attached to. But its direction and the volume of this or that commodity differs. Hence some urban centers are so located as to boom or languish because of a change in boundaries.

Effects of a boundary change upon society are rarely related to the natural environment *directly*. Instead they are results of new stresses in the social structure when one element of it is changed—in this case the boundary. The natural environment and the cultural setting thruout all past time color the existing social structure, and a shift in the boundary modifies this structure still further. The new line cuts families apart, especially where it deserts conspicuous, naturally-marked features. This is less critical in Alsace than in many regions because of the segregating effect of the sparsely

populated mountain- and marsh-lands along its two sides.

Language problems arise. The local Alsacian language is a dialect of German because the Vosges has been a greater barrier to folk-movement than the Rhine. All the local residents in contact with the outside world must learn either French or standard German. The latter is easier for those whose mother-tongue is the Alsacian patois.

Church relations are affected. Like other Rhinelanders, Alsacians are devout Roman Catholics. They are more closely attached to the Church than most of the French, at least in the cities, and they are very remote in thought from the pagan objectives of present-day Germany, or even the Germany of the Kulturkampf (during Bismarck's day).

Education is modified, because of the fundamentally different ideals in German and French training. This is partly a matter of the form of the schooling, *i.e.*, whether parochial or public. More deeply it is a question of what is stressed as important. The German educational ideal is utter devotion to the state, as an end in itself. This is in sharp contrast to the French view of the state as a means to facilitate living an individual life.

CONCLUSION

Geography presents a fixed base of the natural environment on which the "little country" grew up in a primitive age or differentiates itself in a complex age. A social studies investigation of the changes involved in a shift of political boundary can be rested firmly on the regional mosaic of "little countries" in the area affected. The enduring cohesiveness of each such region provides a foundation for understanding (1) conditions which permit boundary change, (2) the results of the shift for the people immediately involved, and (3) the importance of it for the larger world.

To recapitulate: every one of the social disciplines is concerned in a change of a political line. Only geography offers a base fixed in nature from which the historical, political, economic, and sociological effects of the change can be measured.

THE PLACE OF GEOGRAPHY FROM THE VIEWPOINT OF ORIENTATION IN THE HISTORY AND CULTURE OF THE ANCIENT WORLD*

MIMA MAXEY
The University of Chicago

An orientation course in the humanities is a course intended to give those students exposed to it a glimpse of how we have arrived at our present civilization. Thru the long process of development from the earliest days of prehistoric man, in adaptation to environment and in adaptation of environment, in regulation of the individual in the interest of the social group thru government, in expression thru literature and music and art of emotions and dreams and ideals and of interpretations of the world in which he found himself, we follow man's progress.

At any given point in this history of progress the economic setup depends on the climate, the nature of the land, its products, the kind of person who is concerned with them and what he has been able to do in adapting what he has found to his own needs. Whether there is any government and, if so, what sort of government it is, depends on this economic setup and a felt need for regulation in the interests of the group governed or governing. Religion with its tabus, fetishes, and later aspirations and ethical codes also grows out of this life that has been evolved by man at work in his world. From his occupations, his religion, his daily life of whatever sort, comes his literature, art, music. In these last few sentences I have been saying that the basic thing always to be kept in mind in tracing human development is the geography of the region. I am saying this thus explicitly not because I fear that you as geographers do not know it, but because I fear that you as geographers may not realize that I as a teacher of the humanities also know it.

I may pause here to remark that I as a teacher of the humanities wish that students too might come to us with a thoroly grounded idea of the basic importance of the geography of the region studied. That they do not I know is not to be charged in the present state of thinking on curricula to you geographers. Perhaps I am voicing our mutual regret, and give impetus thereby to another effort to

* Presented at the New York meeting of the National Council of Geography Teachers, December, 1941.

remedy the situation. The teacher of humanities can make good, in a measure, at least, lack of knowledge of facts. Attitudes, however, grow more slowly.

Up to this point I have been speaking about the course in the humanities as a whole. From this point on I shall speak about that part in which I am especially working, the ancient end of it, covering the period from prehistoric times to the time of Constantine (320 A.D.).

Having made clear the fact that a teacher of the humanities knows how basic the geographical situation is in his work and having limited the field of this discussion, I should like now to express my gratitude to you geographers for what you have done for us. Doubtless you expect me to talk about maps, so I shall do so at once and get that over. We *are* indebted to you for maps, fine ones, accurate ones, maps of extended areas, maps of detail—maps without which we could not teach at all—and for them we are grateful.

The teacher of the humanities, however, needs quite as much as maps understanding—understanding of the geography of the region with which he is dealing. For making possible the acquisition of such understanding you geographers again have not been found wanting. I am happy to have this opportunity to pay tribute to a book which I consider a great book. I am speaking of *The Geography of the Mediterranean Region*[1] by the late Miss Ellen Churchill Semple. It is a book of the sort that more books should be—carefully wrought, documented, accurate, authoritative, finished in both research and expression. It gives every evidence of having been written by a person who had intimate and accurate knowledge in two fields. The product is certainly valuable for both. Every teacher of the humanities must feel indebted to you geographers for such a book and for the knowledge and understanding that may be derived from it.

With that word you may think perhaps that my speech is over. The truth is, however, that I shall not embrace any opportunity to conclude the whole matter till I have dangled before you, temptingly, I hope, some problems that still need the attention of you geographers.

You may recall that Miss Semple's book was published in 1931 and that the field work and essential research for it were finished

[1] Ellen Churchill Semple, *The Geography of the Mediterranean Region* (Henry Holt and Co., New York, 1931).

some time before that. In the last ten or fifteen years many things have happened—not only in the world of affairs but in the realm of intellectual activity as well. Some of them have brought about the desirability of some supplementary work on the geography of the Mediterranean region. I shall now give a few concrete examples of the sort of thing I have in mind.

Miss Semple in her discussion of the Nile valley[2] says that it is a rift valley, the result of faulting. Several texts[3] used in survey courses in the humanities, however, stir the imagination of their readers with the picture of a huge river in the prehistoric period of more abundant rainfall, cutting the huge gorge that is now the Nile valley, which is flooded periodically today by the present stream, a mere trickle in comparison with that earlier river. This sort of situation is one with which no mere teacher of the humanities can cope, tho he may suspect that a rift is one thing and a gorge another quite different thing and that they can be differentiated and that the case can be presented with the evidence so that even a teacher of the humanities can understand it. I may add that when this matter is cleared up the statement may as well be extended to cover the Red Sea and the Rhone valley as well.

Having suggested a problem that requires knowledge of geology as well as geography, I now offer one that will probably require the aid of both geology and archaeology. I have spent a good many years of my life envying those people who managed to get into a research problem that required the bodily presence of the researcher in some remote corner of the world in which anybody would want to be bodily present. This is one of those alluring field problems. Miss Semple[4] has discussed rather fully the ancient irrigation problems of Palestine. The teacher of the humanities would like to know what solution of those problems has been made in the modern rehabilitation of Palestine under the Zionist movement and whether that solution as in modern Spain, Italy, and Greece is a resumption of old systems and ways. We hope that one day a saner world will admit of such a field study.

The next problem that I propose is harder. It is a problem of

[2] *Op. cit.*, pp. 153, 154.

[3] James Henry Breasted, *Ancient Times* (Ginn and Co., Boston, 1935), p. 26.
Dorothy Mills, *The Book of the Ancient World* (G. P. Putnam's Sons, New York, 1923), p. 16.
Hutton Webster, *History of Mankind* (D. C. Heath and Co., Boston, 1928), p. 62.

[4] *Op. cit.*, pp. 458 ff.

conversion, and when one comes to grips with an elusive problem of the spirit he is on difficult ground indeed. Without having had access to a biography of Miss Semple, I feel rather sure that she was trained in the Greek and Latin languages and literatures, that she later became interested in geography, that she used her previous fields of knowledge, in some cases as material to be interpreted in the light of her new knowledge and with new techniques, and in other cases to illuminate situations that she met in geographic field work. You will note that she constantly refers to Greek and Latin writers. You will note, too, that she does not refer to any Egyptian literature nor to any of the Fertile Crescent other than the Bible, chiefly the Old Testament. The omission was probably due to two reasons: first, Miss Semple was too good a linguist to imagine that she could use those literatures without first hand knowledge of the languages; second, the last fifteen years have yielded enormously enlarged supplies of material. I am suggesting, accordingly, you see, that you go forth with the zeal of evangelists and find a person who knows the Egyptian language and literature, one who knows the Semitic languages and literatures of the Fertile Crescent, one who knows the Sumerian, one who knows the Hittite, one who knows the Persian, and train them in geography till they really know their geography too. Then we shall hope for a geography of Egypt and a geography of the Fertile Crescent that will compare with Miss Semple's work on Greece and the Roman Empire. You note that I am not asking for a cursory overnight bit with no authority as geography and no understanding of language and literature. Any such work as Miss Semple's requires time and scholarship and high ideals. And so I leave you in quest of your converts.

For my closing suggestion I shall come to a more practical matter. From time to time you geographers doubtless do work of excellent caliber that would be of great interest to a teacher of the humanities. We, alas, never see it! I am sure that we *should* take the time to run thru the tables of contents of magazines available in our libraries, but we do not. Instead, we feel that we are virtuously keeping up with our world if we go thru those that are the mouthpieces of our own organizations. I know how tired of an article an author is when he has reached the last period. The author then can not be expected to see that it is known to all who may be interested. Would it not be possible to have a person from your number appointed each year as a sort of liaison officer to see that notices of articles overlapping their fields reach other magazines?

That would be a service that would be highly valuable to teachers of humanities and probably to teachers in other fields as well. It is one, too, that is practicable in our world as it is.

In conclusion I should like to make use of that technique which I am quite sure you geographers use in common with other pedagogues, the press, and the clergy—to say again by way of summary everything that I have said already. The teacher of the humanities can not but be aware how basic understanding of the geography of the region is for understanding of its culture. The teacher dealing with the earlier period is greatly indebted to geographers for the very fine maps available for every phase of their work and for Miss Semple's outstanding book, *The Geography of the Mediterranean Region.* Further work on the region is needed because in certain matters two opposed interpretations persist with no evidence stated to support either *ipse dixit,* because in the time that has elapsed since Miss Semple's work was done new situations have arisen that need consideration, and because there is a large body of literary evidence on Egypt and the Fertile Crescent that has never received adequate treatment. When articles that would be of interest to those working in the humanities or other fields are published by geographers, some provision should be made whereby appropriate notices of that work would appear in journals usually read by people working in those fields.

THE PLACE OF GEOGRAPHY IN THE SOCIAL STUDIES: FROM THE VIEWPOINT OF CONSERVATION EDUCATION

J. R. WHITAKER
George Peabody College for Teachers

Some years ago, in an article dealing with the history of the medieval European village, Valdimir Simkhovitch wrote that altho he was directing attention to the villages, the discerning reader might easily come to the conclusion that he was even more interested in the "life and death of the land and of the people thereon." The death of the land, as he phrased it, referred to the depletion of natural resources, the life of the land to all the processes of resource preservation and improvement that now pass under the banner of conservation. In adding the words, "and of the people," Simkhovitch recognized the ever-present dependence of human well-being of the people on the state of the natural-resource base. Like Simkhovitch, many students of the social studies repeatedly find their attention drawn from the people to the need for safeguarding the natural resources on which they depend.

There is pretty general agreement, indeed, that the conservation of natural resources constitutes a social problem of growing moment. Like other contemporary social problems, this one conforms in outline to no particular field of scholarly endeavor. The established disciplines may therefore ignore it, but if they are to function effectively in contemporary life, they may well inquire into their relation to it and act accordingly. Just such an inquiry for geography is here undertaken.

The contributions of geographers, teachers and others, to the theory and practice of conservation are numerous and noteworthy. Many geographers are actively engaged in conservational programs and others in the teaching of conservational policies, attitudes, and practices. Yet some of us are still not very clear regarding the grounds for geographic treatment of this problem and the contributions which we as teachers can make. What, indeed, are the relations of our work to the conservation of natural resources? What are our contributions? What are our duties? To these questions attention is here directed.

THE GEOGRAPHIC APPROACH TO THE CONSERVATION PROBLEM

To the layman, unacquainted with the geographer's problems

but familiar with newspaper reports of game propagation and the like, the contacts of geography students with the destruction and conservation of natural resources are not at all evident. It may even come as a surprise to some geography teachers that this theme has had a long and honorable tradition as one of the problems to which geographers have given attention for at least a hundred years.

Geography students meet the problem most directly in dealing with the destructive, preservative, and meliorative effects of man on earth resources. The fundamental facts of geography certainly include the human modifications of our earth environment, involving both destruction and improvement. Some twenty years ago, Jean Brunhes, the great French geographer, placed the facts of resource destruction, "facts of destructive economy" he called them, in his list of the fundamental elements of human geography. Brunhes but recognized what had long been the practice among geographers, that is, to study soil erosion, deforestation, etc., in their analysis of the traits characterizing particular places. The observation and classification of the facts of resource destruction and conservation are tasks which the geographer has long accepted together with his study of productive land use and of such other types of occupance as transportation and housing.

The geographer's interest in the *systematic* study of ways in which man alters the earth and the reaction of that alteration on man—a fundamental theme of geography for a century if not longer —gives him an opportunity, as noted above, to report on the problems of resource depletion and conservation. What is more, the study of the *complex* of conditions found in *specific regions* also forces him to consider this theme. The human success in solving the problem of living in any area inevitably involves the permanence of the natural-resource base, and the historical succession of activities in any region is inextricably tied up with these resources. The student of regional and historical geography is thus forced to give attention to the facts of resource destruction and conservation.

What would be the story of the Western Range without reference to the treatment that the native grasses, the Cinderella of the natural resource family, have received? The historical geography of oil-producing areas is essentially the story of regions of waning resources. The irrigated valleys of western Texas rest on resource betterment. The point is this, that there are regions in which resource destruction and conservation constitute the dominant notes

in human occupance. The geography teacher, whether he is interested in "conservation" or not, whether he associates it with the platform of a particular party or the writings of a popular journalist, can scarcely avoid the study of the basic facts of resource depletion and the ways in which that depletion can be counteracted. Accordingly, it is perhaps not overrating our opportunities to say, in the words of Jan O. M. Broek, that geography, more than any other science, is in a position to demonstrate the need for careful stewardship of the habitat.

It may clarify the approach of the geography student to compare it with that of workers in other disciplines. The economist comes at the problem in terms, mainly, of price and of property relations, and of devices of an economic nature. The political scientist is interested in legal aspects and may well be engaged in drawing up proper laws. The geographer on the other hand is concerned with the problem as a phase of human use of different parts of the earth. Traditionally, he is not interested so much in creating institutional devices as in recording the facts of resource utilization. He provides a factual background for policy making, for regional planning, for comprehension of the problem in its actual setting.

The geographic approach may also be compared with that of the systematic students of the physical environment. The biologist carries his researches far beyond anything we could attempt for he is concerned with particular plants and animals. The soils student likewise thoroly understands soil types and can recommend specific steps in soil improvement. But each of these specialists is interested primarily in one group of resources. The geographer, on the other hand, contributes his view of all of them as they fit together to make up man's environment in a particular area. Never for a minute can he do the work of these more specialized workers. On the other hand, his study of resource complexes gives him a grasp of whole pictures, of value in the understanding of regional well-being.

One more distinction—in geography, in contrast to most disciplines, we are interested in specific parts of the earth, in particular places. Ours is, indeed, a study of the differentiation of the earth. Accordingly, we are responsible for telling the story in concrete fashion. If we discharge our responsibility for picturing man's experience in making his home in different sections of our country and of the world, we present these conservation problems as they actually occur in concrete situations. This realistic approach, which we share in part with history, fits us to make an unique contribution.

The relation of geographers to the understanding of the problem may be summarized: we have assumed the responsibility for observing and describing the facts of resource destruction and conservation found in the areas we are studying, and for interpreting these facts, both in terms of their genesis and of the needs of specific human groups. The exhaustive study of individual resource and their treatment commonly fall to more specialized workers. Have we, then, no immediately practical part to play in the conservation program?

Those of you who know something about the history of this movement will recall at once that geographers have been making contributions on several fronts in conservational practice:

1. Certain men have done outstanding work on problems in which several natural elements are involved. The work of the Soil Conservation Service, for example, includes Thornthwaite's researches in climate and landforms as parts of the regional complex.

2. Other geographers have functioned effectively in regional planning. Regional planning involves two distinct branches, planning for more efficient use of natural resources and of cultural resources. Regional planning calls, moreover, for an understanding of regional complexes. In the grasp of the various regional combinations is an opportunity for the geographer. Kenneth McMurry has long served in this capacity in Michigan, Harlan Barrows and Carl Sauer for national agencies.

3. It is my conviction, however, that the chief practical work of geographic conservationists is to provide an understanding of and desirable attitudes towards conservation problems and policies, particularly on the part of our citizenry. Geography students share, in my opinion, with students of land economics in the over-all comprehension of the resource complexes and uses which is basic to the formulation of public policies. If you agree with me that *teaching* is *doing,* then you will surely agree that the teacher who helps to bring up a conservational generation is doing much toward furthering the solution of this problem.

Opportunities for Teaching Conservation in Geography Courses

Opportunities for teaching the lesson of responsible stewardship of natural resources lie at every hand in geographical study. If we think of the various ways in which we organize our teaching, we may identify several main lines of approach.

Field work, much neglected and difficult to carry out, probably

gives the very best contact with resource destruction and conservation. Perhaps you may have had an experience similar to mine in driving one day thru the Driftless Area of Wisconsin. I decided to look for correlations between housing and soil erosion. The first two homesteads I came to suggested the final generalization—good housing and soil-erosion control on the one hand, poor housing and unrestrained soil erosion on the other. It is not necessary to go far from home, however, to carry out such observations. The very front yard of the school may provide lessons in soil and wild plant conservation. In going about field studies, observation of these facts of destruction and conservation is just as pertinent as the consideration of housing or industries.

Years ago, Salisbury, Barrows, and Tower showed us in their *Elements of Geography* how various conservation problems could be handled in the topical treatment of geography; and D. H. Davis, in *The Earth and Man,*[1] has given even greater attention to this theme. The distinction between geologic and man-induced erosion, for example, is a fundamental one in geomorphology; and forest conservation is a logical extension of the study of economic geography of the forest industries. Where the state or nation acts in its governmental capacity to safeguard its natural resources we have the impingement of political geography and conservation. Indeed, here is one of the principal themes in political geography—the action of a state to maintain its natural-resource base.

J. Russell Smith has shown us in his *Men and Resources,* and in the revision, with O. M. Phillips, of his *North America,* how effectively the theme of resource destruction and conservation can be handled in regional geography. To see the whole process as a part of the regional development is to place it in its proper perspective. Certainly one of the best approaches to this problem for the geographer is in the study and teaching of regional geography. It is proper that we recognize that J. Russell Smith long pioneered in this phase of geography, and that his conclusions are based on a life-time of observation and reflection.

I have left to last the so-called courses in Conservation. These are commonly taught by geographers, if in college; by a wide variety of workers if in the elementary and secondary schools. While we geography teachers have no desire to monopolize this type of instruction, it is well for us to recognize and make the most of our qualifications. Accustomed to considering all phases

[1] D. H. Davis, *The Earth and Man,* The Macmillan Company, 1942.

of the natural environment, we have a background and balance which should help us to give each due weight. Being realistic rather than theoretical, we can tie our study down to actual places. Concerned with the human side as well as the physical side of regions, we can see how these pathological conditions are related to human causes. Our knowledge of the United States in particular and the world in general gives us a spring board (other disciplines have theirs, of course) from which to launch into a study of this problem with our students. If we combine, moreover, the point of view of the educational specialist with that of the geographer, as does George Renner in his challenging book on conservation in education,[2] we have a most strategic approach to this phase of social education.

Contact with conservation problems and opportunity to develop an understanding of them is not enough, if our service in conservation education is to be large. We need to keep the objectives of conservation education in mind, and we may well be guided in our work by certain principles which past teaching experience has brought to light.

Objectives in Conservation Education

1. Perhaps the basic objective of conservation education is to develop an appreciation of the value of natural resources, of our dependence on them, and of the necessity for maintaining adequate supplies of them. A farmer in Laurence County, Tennessee, moved from farm to farm, bragging of the farms he had worn out. Today a son of his is struggling to make a living on one of those worn-out farms. Years ago a student in a conservation class was consistently failing. When questioned, he gave as the reason that he had never given any thought in earlier years to soil or forests or minerals. Basic to any program of conservation is an appreciation of the resources to be conserved.

2. If truly appreciative of the significance of natural resources in human life, we will doubtless make progress toward the second objective—we will develop sensitiveness to resource depletion, we will see it as a process inevitably tied up with life, and we will therefore view it as something to be combatted. And yet, appreciation of resource values does not necessarily bring sensitiveness to destruction. A land owner argued that the fence between his land

[2] George Renner, *Conservation of National Resources—An Educational Approach to the Problem*, John Wiley and Sons, 1942.

and that of his neighbor's had been placed a few feet on his side. Gun in hand, he forced the relocation of the fence and guarded it thenceforth. At the same time erosion was removing most of the top soil from his fields. He valued his land but he was not trained to detect the signs of its destruction.

3. We need a broad understanding of basic problems and policies of locality, of region, of state, and, if possible, of the nation. Conservation needs to be based on understanding, not on emotional froth. True, our convictions should be so well grounded as to take on an emotional tone, but understanding is necessary. Perhaps there has been no better example of misguided effort than the man who sought to conserve trees by shooting the woodpecker, well known as an insectivorous bird. Many people along the Ohio Valley consider that reservoirs at the head-waters will prevent the flooding of the river bottoms, but engineers and all who give the matter much thought know that this precaution is of little value if rain falls between the reservoirs and the endangered bottoms.

4. We need to build up new customs and practices. We need to correct such customs as dumping trash and rubbish in ditches and other places; burning over grassland and woodland; using creeks for sewers; despoiling trees, shrubs, and flowers. Nor should we always direct attention to what others should do. In conserving the beauties of the school grounds there is generally work right at hand; similarly in establishing small wildlife refuges. In a few hours' survey, nearly every community can be made to yield a challenging list of practices to be corrected.

5. We need to back up our changed practices with a new ideology. Our resources are not inexhaustible; ownership of resources may well be public in certain instances; science cannot free us from dependence on natural resources. No scientific sleight-of-hand can ever do other than substitute one raw material for another, and not always even that. And, most critical of all, we need a new ideal regarding property—to accept wholeheartedly the doctrine that we are to be good stewards of earth resources. The challenge of good stewardship!

6. Scarcely separable from the need for good stewards of natural resources is the need for building up a new community ambition. To help make our home areas—locality, county, state, and nation—rank high among the best places on earth, that is a high aspiration. We go at it in many ways, but one of the major

approaches is thru the conservation of natural resources. The ambition of Americans has seldom taken this direction. What a transformation would result if it did become the ideal of most American communities!

GUIDING PRINCIPLES IN TEACHING CONSERVATION

As we go about the study and teaching of conservation, each of us will glean suggestions to guide us in further work. A few such suggestions are given below; others will occur to the experienced teacher.

1. One of the problems that always arises is this—how shall we teach conservation, as a separate course or in connection with existing courses? My answer is this: for the years preceding senior high school, it is best to teach it in connection with the established courses, geography, history, and so on. In senior high, a course in conservation problems may well make up a half year or year social studies course. And there are strong grounds for a single course in college. The college student simply will not take the various courses which touch different aspects, nor would he put the pieces together in an understandable whole if he did. Particularly is it desirable that every teachers college rise to the challenge to give direct attention to the whole problem. May I repeat, the *whole* problem! Time after time students assert that before taking a course in conservation they thought of the problem solely in terms of some one aspect, such as wildlife depletion, or soil erosion.

2. Focus the attention on problems of genuine significance. Running thru all vital teaching as well as productive research is the awareness of an unknown, the answer to which seems worth getting. A tenth grade class spent much time on what they decided were two needs of their home area—soil erosion control and provision for outdoor recreational facilities. No phase of geographic study lends itself more readily to teaching thru problems.

3. In geography we have the opportunity to stress specific place relations, concretely to build up a knowledge of the problem in specific places. Here maps are needed, maps of resources, maps of production, maps of movement of raw materials and even of people. We need to stress our home area and our obligation to it, but no less critical in many phases of conservation is our relation to regional and national situations. Each child should know the areal extent of the problems touching the life of his community. In this connection, I have found most useful the physiographic

regions maps of states and the Nation. Drainage region maps are likewise indispensable for the study of water problems.

The necessity for dealing with particular places rests on the fact that the combination of problems differs from place to place. Workers in each locality and region must make the application of general principles to their area. The whole problem is thus unique for every place.

4. Stress the near future. Possibly in our adult instruction we should give more attention to the distant future, but certainly with young people it is the short-time view that must prevail. And I am repeatedly surprised, too, at the way the long-time problem takes on a short-time urgency. Our coal, for example, is sufficient for thousands of years, but we are already using up the best at a rapid rate and many communities have exhausted their supply. Gravel is probably sufficient for a long time, taking the country as a whole, but it is already seriously depleted in many of the counties where road-building has been active.

5. In most of our teaching, let us dwell on the known. We do not deny the need for continuous research, but know that resources are meanwhile being wasted. We may not know how to preserve the orchid with least effort, but we do know not to pick it. We may not know just how we should tax our forests, but we do know not to burn them. The teacher must spend most of the time in the area of the known, to pass on to the new generation the heritages from the past.

6. The teacher of conservation, certainly the geography teacher, soon finds that there is only one possible rôle, that of counselor and guide. Particularly should one beware of appearing to know it all. While geography touches conservation problems at many points and provides a usable frame of reference from which to launch into the study of these problems, the trail soon leads into history, sociology, economics, and other fields. We need to follow the trail where we are competent, but we cannot do so as masters but as learners. The least capable child in the class, moreover, may be able to tell us something new about the habits of wild animals or the concrete details of local bird lore. We return again to the fundamental truth that conservation problems, like all vital contemporary issues, cut across the traditional fields of knowledge.

7. In guiding our students, it is vastly important, moreover, that we keep in mind the objectives of the whole program of conservation. Tree study is not conservation *per se*. You can study

stream erosion and still not get at the lessons of resource destruction and preservation. Pressing leaves or drawing pictures of birds is not conservation. *The heart of conservation deals with resource destruction and the various ways of counteracting it.* Unless we pass on to those questions we fail in this connection.

8. Lastly, we must keep the faith. Man has been likened to a fish in an aquarium, unable to avoid using up the precious oxygen on which its life depends. The comparison is suggestive but hardly adequate, for man can do much to balance resource depletion by restoration. It is on the knowledge that man can, in large measure, maintain the quantity and quality of his natural resources and on the faith that he will have sufficient good sense and self-control to do so that the conservation teacher works.

THE USE OF MAPS IN PROPAGANDA

LOUIS O. QUAM
University of Colorado

The map, the most distinctive tool of geography, has become an important propagandic weapon in psychological warfare. German geo-politicians discovered that the public has great faith in the authenticity of data depicted on maps.[1] They found therefore, that one of the best methods of presenting an idea to the people is to represent it on a map. Careful attention was given to methods by which maps could be made to create a desired false impression from otherwise accurate data. In this way propaganda maps are designed to produce impressions rather than to reveal information. The map becomes a psychological force instead of a scientific tool.

Geography teachers, as the interpreters of maps to an uninitiated audience, must be constantly aware of the false impressions that even scientifically accurate maps may create. Even the most faithfully constructed and accurate map is an imperfect representation of the earth or a part thereof. That geography teachers have long been aware of the psychological influence of maps is shown by the treatment of this subject in *The Teaching of Geography,* 32nd Yearbook of the National Society for the Study of Education. Teachers of geography have sought constantly to cor-

[1] A recent article by Wright discusses this common misconception. Wright, J. K.: "Map Makers Are Human," *Geog. Rev.,* vol. 32, pp. 527-544 (1942).

rect the false impressions that may arise thru inherent limitations of maps, but the wide employment of maps for propaganda purposes has increased their responsibility. The propaganda map must be recognized for what it is—a wilful exploitation of the inherent limitations of maps to distort, exaggerate, or deny facts, and the public as well as students must be made aware of its existence and characteristics.

Characteristics of the Propaganda Map

German geo-politicians[2] have studied carefully the means of creating maps to publicize their theories. Hans Speier[3] has analyzed recently the ingenious devices used by German cartographers to focus attention on the ideas they wish to stress. Probably few of the readers of this Journal have access to Speier's article, and it seems desirable to review the characteristics of propaganda maps and to illustrate with several examples the manner in which they have been used.

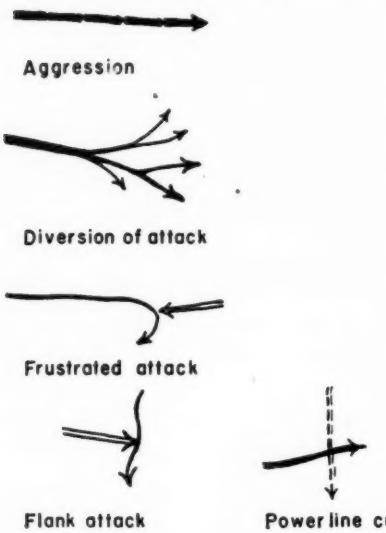

Fig. 1. Symbols commonly used on propaganda maps.

Symbols of Action. Haushofer[2] states that in creating the "suggestive map," the greatest stress is placed on the use of proper symbols. Maps designed to illustrate the lightning speed of modern war must suggest movement. Parallel lines illustrating the position of the front lines of action are not sufficient. No propagandist would wish to suggest that a stalemate prevails or that both sides have an even chance. He must indicate that the enemy is being crushed by the irresistible advance of his country's troops.

Since action itself cannot be shown on a map, the cartographer must develop a system of symbols which suggest movement without calling for too great an imagination on the part of the reader. The arrow is most commonly employed. A strong straight arrow is a

[2] Haushofer, Karl: "Die Suggestive Karte," *Bausteine sur Geopolitik* (1928).
Marz, J.: "Die Landkarte als Politishes Propagandmittel," *Die Gartenlaude*, no. 16 (1921).

[3] Speier, Hans: "Magic Geography," *Social Research*, vol. 8, pp. 310-330 (1941),

sign of aggression; an arrow curved back upon itself, a sign of frustration; a branching arrow denotes diversion of attack; and a weak-looking arrow opposed by a bold straight one indicates a flank attack or one power line overcome by another. On many maps a broken arrow with each segment pointed, simulating the construction of a flashing neon sign, helps give the illusion of movement to the arrow of aggression. (Fig. 1.)

Encirclement. Encirclement is easily shown on a map by means of color or black and white pattern. On some maps concentric circles are drawn around the encircled area to add emphasis to the idea. Less subtle methods employ the use of pictorial symbols, such as chains or steel bands surrounding the encircled area. To illustrate the failure of attempted encirclement the encircling lines or symbols may be shown as broken, or severed by arrows radiating from the central area.

Fig. 2. A post-card map used to arouse in the German people desire for rearmament and to plead the justness of the German cause outside Germany.

Cartographic Symbols. Size, color, and design of cartographic symbols also have propaganda value. Every cartographer realizes the difficulty of scale of symbols in relation to scale of the map. Rivers, towns, buildings, and pictorial symbols cannot, except in the case of very large scale maps, be drawn to scale. Geographers and cartographers try to overcome these difficulties, but the propagandist manipulates them so as to focus attention on the idea he wants to stress. Fig. 2, reproduced from a four colored postcard, shows how effectively pictorial symbols can be used in creating the impression that Germany being disarmed was endangered by its strongly armed neighbors.

Speier[4] describes a map showing the German minority in Latvia represented by a row of thirteen symbols each standing for five thousand people. The symbols were of such size that they extended

[4] Speier, Hans: *op. cit.*, p. 316.

over the whole area of Latvia giving the impression that the country was largely populated by Germans, altho in reality the German minority constituted but 3.7 per cent of its total population.

Color. Color is used effectively on propaganda maps in many ways. The use of blending or clashing colors on a map may change greatly the impression the map makes on the reader. Also colors have symbolic values which propagandists appear to employ. Then, too, the manner in which very small areas are handled in the coloring of the map may alter markedly the effect of the map.

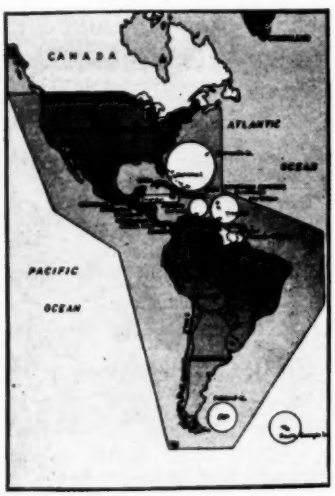

Fig. 3. England a threat to the Monroe Doctrine, from *The War in Maps,* p. 33. (British areas white on this reproduction were yellow on original map, dark areas on reproduction were green on original.) A deliberate use of color and design to exaggerate British areas. Note large circles of yellow around small islands.

Fig. 4. India: Divide and Rule, from *The War in Maps,* p. 37. (Areas inside boundary of India shown in black on this reproduction were orange on original map, gray areas were green, and white areas yellow. The areas outside India: China, Sinkiang, Russia, and Afghanistan were gray and orange striped.) Note the broken boundaries of provinces in India and solid line boundaries between other areas.

Fig. 3 represents a deliberate misrepresentation of the size of the British possessions in the Western Hemisphere. The original of this map appeared in a propaganda atlas[5] prepared at the Geopolitical Institute at Munich and distributed in America thru the

[5] Wirsing, Giselher, et al.: *The War in Maps,* German Library of Information, N.Y. 1941.

German Library of Information. On it the non-British areas were bright green and the British possessions yellow. By coloring large zones between adjacent islands yellow, as between Bermuda and Bahama, the size of the British areas is exaggerated. The map is entitled "Britain a Threat to the Monroe Doctrine."

The color scheme in this propaganda atlas was probably deliberately chosen for its psychologic effect. Germany is always shown in red, a color generally recognized as a symbol of zeal or strength; England is yellow, probably designating cowardliness. Green for America may imply stupidity and inexperience in world politics.

Boundary Lines. Suggestive symbols also have been applied to boundary lines. Strong smooth lines are employed to denote stable, natural, and friendly borders; broken irregular lines suggest weakness, and disunity, or stress of hostile frontiers.

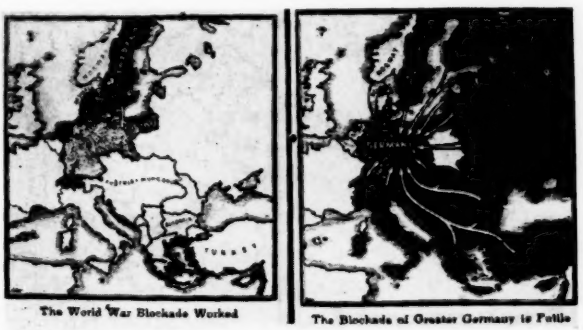

Fig. 5. Greater Germany is Immune to Blockade. From *The War in Maps*, p. 8-9.

The propaganda atlas contains a map entitled "India: 'Divide and Rule'" (Fig. 4) in which color and special boundary symbols are used to create a desired impression. The boundary lines between countries outside of India are smooth lines and these countries are shown in one subdued, blending color (shades of gray on original map). Political subdivisions within India, however, are each shown in a different bright color (green, yellow, orange, and red), and each small area is separated from others by broken barbed lines. The impression is complete disunity within India and stability elsewhere in southern Asia.

Drawing of hypothetical boundary lines is a stunt employed to make comparisons in pleading for boundary revision. Many maps similar to Fig. 8 have been circulated by Germany. Hungary once issued a pamphlet map to emphasize its grievance over territory lost in the last war which shows England partitioned, giving Scotland to Norway, north England to Germany, Ireland to America, and the east coastal area to France. The implication of course, is, "How would you like it?"

Paired Maps. Two maps printed on the same page is an effective device used to draw parallels and facilitate comparison. This scheme is used to show contrast in power or strategic position of two nations, or to portray a change in these conditions from one time to another. Germany has used paired maps to illustrate its stronger position in 1939 as compared with 1914, and thus to discourage neutral nations from entering the war against it. The pair of maps reproduced from *The War in Maps* (Fig. 5) shows Germany's strategic and economic position at the beginning of World War I and World War II. The first map depicts Germany encircled by its enemies with only a few small neutral countries (Sweden, Denmark, Holland, and Switzerland) able to provide it with supplies. This map is entitled, "The World War Blockade Worked." The second map shows all Europe except England and France as sources of supply for an enlarged Germany. The title is "The Blockade of Greater Germany Is Futile."

Fig. 6. A Study in Empires, from *Facts in Review*, April 5, 1940.

Paired maps lend themselves to representation of political ideas as well as to physical comparisons. Fig. 6 reproduced from *Facts in Review*[6] is characterized by Speier[7] as a skillfully executed propaganda map of utmost simplicity of design, with all details and names omitted. In a subtle way the question of war guilt is alluded to by a concise and challenging question, "The Aggressor Nation?" placed at the bottom of a large white rectangle containing a small map of Germany. In another rectangle of equal size are scattered maps of the various members of the British Empire including Egypt. The caption below this rectangle is "26% of the world, The British Empire."

This map suggests that the cause of the war is British imperial-

[6] *Facts in Review*, vol. 2, p. 33, April 5, 1940. German Library of Information, N.Y.
[7] Speier, Hans: *op. cit.*, p. 319.

ism thwarting the "have not" nations. Another implication according to Speier is that Germany's record is white and clean, whereas the British record is spotty and cluttered. Actually, of course, the map contributes nothing toward answering the question of the aggressor nation. Wealth or size of possessions are not the distinguishing characteristics of a criminal as opposed to a law-abiding citizen. Neither is Britain's success during the period of colonial expansion and Germany's failure to achieve its desires for empire a criterion of the present character of these nations.

Simplicity of Design. Simplicity is an ideal characteristic of propaganda maps. Scale, direction lines, roads, and other details are usually omitted. To serve its greatest value a propaganda map must be quickly and easily comprehended. In short, it appears that the less geography portrayed on the map, the more likely it is to convey at a glance the message of the map.

Exploiting the Limitations of Projection. One of the most difficult problems of the geography teacher is overcoming the false impressions students get from the use of certain map projections. The Mercator projection, which greatly exaggerates the size of polar areas as compared with those near the equator, has been used by German geo-politicians to stress the desirability of a Russian-German alliance and later to spread the fear of the "menace of Bolshevism."

SOME EXAMPLES OF GERMANY'S USE OF PROPAGANDA MAPS

Maps Used to Condition the German People. We now turn to a review of a few examples of how the German propaganda machine has employed maps in its psychological warfare. First, the German people were made "space conscious" by a liberal use of maps and much discussion of *"lebensraum"* and bound-

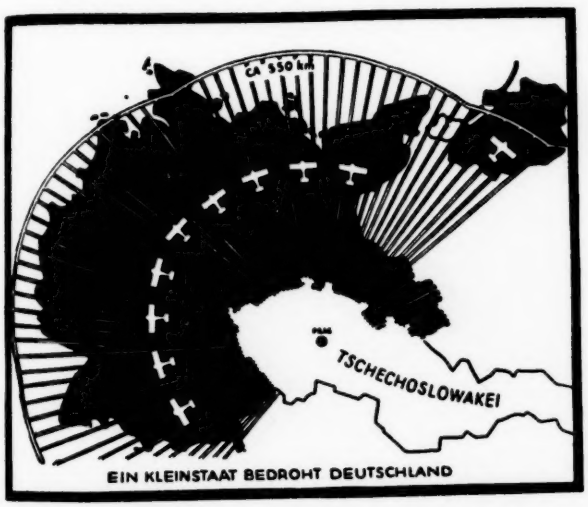

Fig. 7. A Small State Threatens Germany, from *Survey Graphic*, Oct. 1941.

aries. The most common device used was maps showing German minorities outside of Germany, the areas lost at Versailles, and the demilitarized zone inside the Germany boundary. Maps showing the armed strength of Germany's neighbors (Fig. 2), and vulnerability of Germany to an air attack (Fig. 7), pleaded for a rearmed Germany and a removal of the threat. Circulation of these maps in leaflets, books, and postal cards outside of Germany helped sell the world on the need for German expansion. *Anschluss* with Austria, the return of Memelland, and the Munich Pact were evidences of

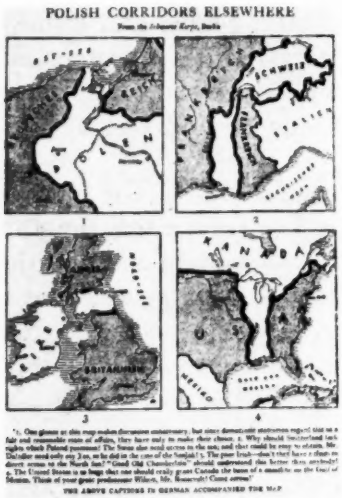

Fig. 8. Polish Corridors Elsewhere, from the *Schwartze Korps*, Berlin. Published as shown above without further comment in *Living Age*.

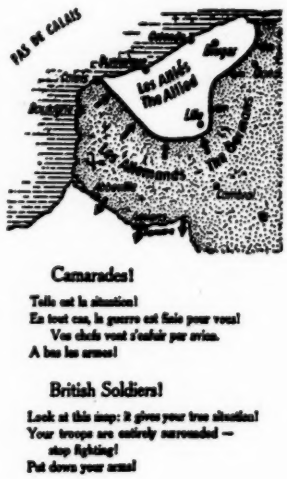

Fig. 9. Leaflet map dropped on forces at Dunkirk, May 25, 1940. Courtesy of *Social Research*.

the effectiveness of this and other German propaganda and of diplomatic maneuvering.

Shortly after Munich many clever maps were issued that called attention to the injustice of the Polish corridor which the Germans considered an impossible situation. Fig. 8 is an example of the anti-corridor maps. This map appeared without additional comment in *Living Age*[8] one of America's oldest periodicals recently closed when the Federal Bureau of Investigation arrested the owners for failing to register with the State Department as propaganda agents for Japan.[9]

[8] *Living Age*, vol. 357, p. 29, 1939.
[9] *News Week*, Sept. 14, 1942, p. 38.

Propaganda Maps Used to Undermine Morale of Allied Troops. In the case of Poland the psychological attack failed to obtain capitulation to Nazi demands without resistance. Thus, the war was precipitated, and then a new use of propaganda maps appeared—to undermine the morale of fighting soldiers. Fig. 9 is a reproduction of a leaflet map dropped from German airplanes to allied troops in Belgium on May 25, 1940, while they were still fighting. This map shows how cartographic design may imply encirclement and action. The cartographer has created the impression that the Allied forces are completely surrounded by shading the sea, and stippling the area occupied by the German army, while leaving the Dunkirk area white. Had the pattern used to designate the sea not blended with that used for the German area and contrasted with the blank white of the Allied area the impression of encirclement would not have been achieved. Seven arrows pointing from all directions toward the Allied area reinforce the idea, and indicate that an advance, not a stalemate, prevails.

Maps Used in the Psychological Offensive to Keep America Neutral. After Dunkirk and the fall of France, the Battle of Britain started and the Nazis apparently began to fear the United States might soon enter the war. It was at this time that the atlas, *The War in Maps* appeared, to show Americans how futile it would be to aid Britain. The Germans wished to make us believe that "British Imperialism" was the cause of the war and that Great Britain was the only real threat to the Western Hemisphere and the Monroe Doctrine (Fig. 2). Seven out of twenty-four maps in this atlas are designed to portray England as the aggressor against the whole world. Twelve maps stress the invincibility of Germany and five maps, the "justness" of Germany's grievance.

Fig. 10. 1914-18: German Fleet Bottled Up. 1940: Germany Breaks Thru to Atlantic. From *The War in Maps*, p. 16 and 17.

Fig. 10 is a reproduction of a pair of maps designed to show Germany as invincible. The first map shows Germany blockaded by the British fleet and mine fields. A white

cross dated 5-31-1916 marks the site of the Battle of Jutland. The second map shows Germany in possession of the entire coast of Europe from Trondheim to Brest, and German powerlines cutting those of the British. A cross opposite Bergen suggests that the battle of April, 1940, was as decisive as Jutland in 1916. Distances and radial arcs show that all the British Isles are vulnerable to air attack by planes based on the continent.

Blue Prints of the Future World

Coincident with the issuance of *The War in Maps* there appeared in *Facts in Review*[10] a subtle map designed to suggest to the United States that it might be more profitable to join the Nazi New Order. This map (Fig. 11), reproduced in *Time*,[11] shows the world divided into four "natural spheres of interest." One sphere consists of Europe (excluding Russia), Africa, and the Near East; another, the Western Hemisphere; a third, Japan, China, India, and Australasia; and a fourth, the U.S.S.R. The text which accompanied the map discussed the relative production and trade of each area, but did not define the title "Natural Sphere of Interest." The reader is free to go to any length in interpreting its purpose and significance. Strong sweeping boundary lines imply a naturalness which close scrutiny belies. Disregard for political boundaries and present economic relations is noteworthy. The thoughtful student will realize that the implied economic unity of the areas is more apparent than real, and the failure to include a triangle of territory

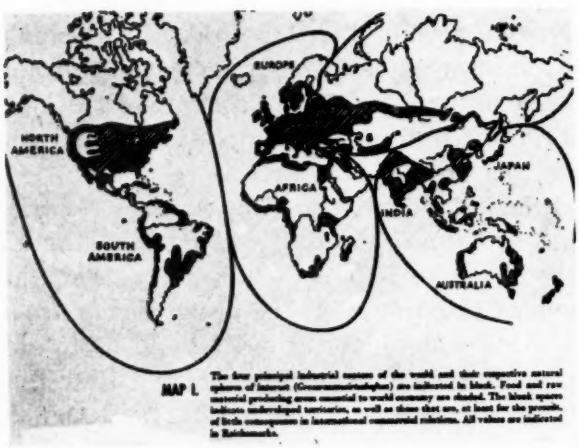

Fig. 11. Natural Spheres of Interest, from *Facts in Review*, April 10, 1941.

[10] *Facts in Review*, vol. 3, pp. 182-83, April 10, 1941. German Library of Information, N.Y.

[11] *Time*, May 12, 1941, p. 23.

in the vicinity of Iran certainly would not be conducive to stability in a world of large economic areas.

NATIONS INCENSED BY MAPS

The Falkland Island Stamp. National pride is often offended or national ego inflated by use of maps. Maps on postage stamps have been used to air grievances and to express pride. On occasion they have led to political turmoil. As a retort to the British Falkland Island centennial stamp of 1933, Argentina issued a stamp showing the islands as an Argentinian possession. The Germans exploited the anti-British implications of this stamp by reproducing it in *Facts in Review.*[12]

The "Reynaud Map." A more recent example of a map causing a diplomatic stir is shown by the case of the "Reynaud Map." On the title page of the French Magazine, *L'Illustration,* March 16, 1940, was a picture of Sumner Welles and Robert Murphy of the United States with Paul Reynaud, then Minister of Finance of France, meeting in M. Reynaud's office. A map of Europe appears in the background. Someone in Italy—so the story goes[13]—enlarged the map and found the boundaries on it at great variance with the current maps of Europe. At once the propaganda offices of Italy and Germany began to comment on the "secret plans" of France for a new partition of Central Europe, and also of United States collaboration with them. An *L'Illustration* artist admitted having retouched the negative and having put on some lines to make the background less dull.

Nevertheless Mr. Welles found it necessary to deny having seen or discussed with Reynaud any map of Europe; but the verbal denial of the content of a map cannot overcome the psychological fact that one trusts more what he sees than he does what he hears. This suggests that propaganda maps should be fought with other maps rather than with words.[13] This fact places a great responsibility on cartographers and geographers. They must not only understand the psychological value of maps and cartographic symbols, but also they must see that their "blue prints" for a new world are in harmony and not at variance with the Democratic Ideals of the United Nations.

The Renner Map. An example of the repercussions that can result

[12] *Facts in Review,* vol. 2, p. 5, Jan. 6, 1940. German Library of Information, N.Y.
[13] Speier, Hans, *op. cit.,* p. 311.

from the publication of a map that is at variance with political reality is shown in the storm of protest aroused by Renner's map published in *Collier's*.[14] This map divides Europe into nine large nations absorbing the small nations like Switzerland and Belgium. The ideal world according to Renner is one of large states each with a fair share of the world's resources.

That such a world would not solve all problems of peace is shown by the protests to Renner's article made by the governments-in-exile[15] of the small nations. Famous columnists took up the issue and their adverse criticism was so damaging to the American system of education in general and to geography in particular that many American geographers felt compelled to refute Renner's Map[16] as not representative of the belief and teaching of American geographers.

Maps play an important role both in the prosecution of the war and in the designing of the peace to follow. In both instances propaganda maps will be employed in shaping public opinion. Geography teachers must assume the duty of pointing out to the public the propaganda features of certain published maps. They must also be aware of the peculiar credulity with which maps are generally accepted. As map makers they must strive to make their maps accurate and in harmony with the democratic ideals of our cause. As map users they must be cautious lest they read the map incorrectly or draw from it unwarranted conclusions.

[14] Renner, Geo. T.: "Maps for a New World," *Collier's*, June 6, 1942, pp. 14-16.
[15] *News from Belgium*, vol. 2, no. 23, June 6, 1942. See also *Time*, June 15, 1942, p. 25.
[16] See *Time*, July 13, 1942, pp. 42-44 and Aug. 3, 1942, pp. 3-6.

ILLUSTRATIVE MATERIAL FOR CONSERVATION EDUCATION. III. FILM STRIPS

W. H. HARTLEY
State College for Teachers
Towson, Maryland

In the present hour of national crisis the importance of our natural resources looms larger than ever before. An understanding of these resources and a study of their wise utilization should form a part of the social studies curriculum in every school. It is one thing, however, to realize the importance of this study and quite another to present this material in a fashion which will challenge the young American to an intelligent understanding of the many ramifications which this subject takes. The social studies teacher is indeed fortunate in having available in an easily accessible form, well edited, pictorial conservation education material in the form of film strips.

The film strip is a series of pictures printed on a strip of 35 mm film. This strip is projected, one frame at a time, by means of a special film strip projector. The average strip, containing from 40 to 60 pictures, costs from 40 cents to $2.00. The low cost of this form of projected picture is one of its many advantages.

Film strips may be easily and inexpensively made. The first requisite for producing these visual aids is a camera taking 35 mm film, the so-called "candid camera." These cameras range in price from $15.00 to $300.00. Satisfactory results can be obtained from the less expensive of these cameras. Having obtained the camera the next step is to decide upon the scenes to be included in the strip. Draw up a shooting script and if possible take the pictures in the order in which they are to be projected. After taking a series of pictures the negatives are processed and a positive strip made. Any photo finisher will make a positive strip for you. A positive strip simply means that the pictures are printed in sequence on a roll of film instead of on paper. The total cost of a homemade film strip of 36 pictures is about $2.00.

The principal advantage of the film strip lies in its convenience. Here is a series of pictures ready to show in the order which best teaches the material under consideration. This same advantage may prove to be a disadvantage under certain circumstances for, since the pictures are in a continuous strip, it is not easy nor convenient to show them in any other than their fixed order. For example, if

only the first and last pictures are to be used one must run thru the entire strip in order to show just these two frames.

The film strip is extremely useful in many teaching situations and an increasing number of teachers are making use of them. They are easily portable, inexpensive, readily available, and the projector may be obtained at low cost. A good film strip projector costs from $25.00 to $60.00. A large number of film strips on various aspects of the conservation of natural resources are available and for the most part they are very well made. The following list of film strip sources will guide the teacher in obtaining those strips best suited to his needs.

Sources of Film Strips on Conservation

Bond Slide Co. Inc., 68 West Washington St., Chicago, Ill.
The Mississippi Valley as a Whole. Single frame. $1.50

Cambosco Scientific Co., 37 Antwerp St., Boston, Mass.
General Science
G-1 Water. $2.00
G-53 Flood Protection. $2.00
G-54 Putting Rivers to Work. $2.00
Chemistry in Industry
G-1057 Coal Mining. $2.00
G-1017 Iron. $2.00
G-1025 Petroleum. $2.00
Geology
G-105 Ground Water. $2.00
G-106 Movement of the Earth's Crust. $2.00
G-107 Work of Rivers. $2.00
G-108 Work of Rivers—II. $2.00
G-112 Weathering and Wind Deposits. $2.00
G-121 Erosion. $2.00
Biology
B-4 Interdependence of Living Things. $2.00
B-51 to B-60 Wildlife. $2.00 each.
B-71 to B-99 Birds. $2.00 each.
Nature Study
B-141 to B-174 Wild Animals. $2.00 each
Forestry
B-252 Forest Conservation. $2.00
B-261 Our Forests and What They Mean to Us. $2.00
B-262 How Our Forests Serve Man. $2.00
Geography
G-221 to G-260 Sections of the United States. $2.00 each
National Parks
G-391 to G-412 One Set on each Park. $2.00 each

The Forest Service, U. S. Department of Agriculture, Washington, D.C.
Film Strips. Available for short period loans. Information about these strips may be obtained from regional foresters. Film strips are shipped by mail; borrower pays return postage.

General Electric Co., 1 River Road, Schenectady, N.Y.

Wiring for the Farm. Available on a permanent loan. Free.

The National Forum, 417 S. Dearborn St., Chicago, Ill.

Farm Problems. Problems of production, income, soil erosion, etc. **$3.00**.

Nature Study Services, State College, San Jose, Calif.

Nature Study Illustrated. With manual. **$2.00** each.

No. 7 Some Nesting Birds
18 Spring Wild Flowers
20 Summer Wild Flowers
22 Conifers of the Sierra Nevada Mountains
23 Conifers of the Coast Range Mountains
24 Along a Redwood Trail
25 Along a Sierra Trail
27 Some Plants of California Deserts

Henry G. Peabody, 800 Prospect Boulevard, Pasadena, Calif.

Large assortment of film strips on National Parks and the west. **$2.00** each.

Society for Visual Education Inc., 100 East Ohio St., Chicago, Ill.

Geography of the United States. Twenty-two rolls of film strips at **$2.00** per roll or **$40.00** for the complete set. A manual accompanies each. Two rolls on each section of the country. The first describes the natural setting and man-altered landscape; the second describes man's activities and adjustment to the area.

Physical Geography. Each **$2.00**. No manual.

Ground Water
Work of Rivers

National Parks of the United States. With manual **$1.50** each.

Glacier National Park
General Grant and Sequoia National Park
Mt. Rainier National Park
Rocky Mountain National Park
Mesa Verde National Park
A trip through Yellowstone

Industrial Geography. Each film, with manual, **$2.00**

Coal Mining
Aluminum
Copper and Its Uses
Iron and Steel
Lead
Zinc
Reclamation, A Vital Industry

Forestry. Each film, with manual, **$2.00**.

Forest Conservation
Enemies of the Forest
Friends of the Trees
Our Forests and What They Mean to Us
Facts About Our Forests—III—Products and Conservation

Stillfilm Inc., 4703-05 West Pico Boulevard, Los Angeles, Calif.

Stillfilms are strips of 55 mm transparencies printed on safety stock film. They can be projected in a regular glass slide projector fitted with a Stillfilm carrier—price, **$5.50**. Stillfilms average 15 pictures and 15 titles to a strip. Sale price **$3.50** each.

N-13 California—Big Trees
C-126 Columbia River Valley
G-128 Great American Desert
G-108 Rainier National Park

G-22 Yosemite National Park
G-114 Zion, Bruce, Cedar Breaks, Grand Canyon
A-5 Irrigation, United States
X-4 Logging
X-20 Petroleum
X-6 Wood Utilization and Conservation
N-7 Birds and Bird Homes
N-16 Wild Animals of North America

Visual Sciences, Suffern, N.Y.

General Science Film Strips. Average 40 frames per roll. Each $2.00. G-1 Water

Vocational Guidance Films Inc., Des Moines, Iowa

Your Life Work Filmstrips. Introduces workers who deal with our natural resources. Strips are $2.25 each, 10 per cent discount in lots of ten or more.

Group I—No. 5. Agriculture, Fishery, and Forestry
Group II—No. 13. Tree Surgery

U. S. Department of Agriculture, Extension Service, Washington, D.C.

Orders for these 35 mm film strips should be sent, with remittance, to Photo Lab. Inc., 3825 Georgia Ave., N.W., Washington, D.C. At the same time send a duplicate order to the Department of Agriculture, Extension Service, Washington, D.C., with a request to authorize the sale.

No. 470 Agricultural Conservation for 1939—50 cents
585 Frontiers of Grass—55 cents
593 More Abundant Wildlife Under the AAA—60 cents
335 History and Development of Agricultural Implements and Farm Machinery—55 cents
210 Farm Fire Losses—50 cents
319 National-Forest Playgrounds—60 cents
327 Work of the Forest Service—60 cents
341 Stop Gullies—Save Your Farm—55 cents
342 Forest Conservation—55 cents
376 Forest Fires, How They Are Caused—60 cents
506 Forestry and Human Welfare—55 cents
244 Soil Erosion, a National Menace—65 cents
435 Tillage to Control Wind Erosion—50 cents
438 Contour Furrows—50 cents
439 Strip Cropping—50 cents
442 Farm Practices That Conserve Soil and Water—50 cents
467 Soil Erosion in the United States—50 cents
504 Gully Prevention and Control—60 cents
523 Erosion—Whose Problem?—50 cents
558 Soil Conservation Benefits Wildlife—50 cents
576 Fighting Erosion with Terraces—50 cents
425 Erosion Control on the Northern Great Plains—50 cents
426 Erosion Control in the North Atlantic States—50 cents
455 Control of Water Erosion in the Central Great Plains—50 cents
456 Wind Erosion, Its Control on the Southern Great Plains—50 cents
468 Controlling Water and Wind Erosion in the Pacific Northwest—50 cents
469 Erosion Control in the Southeast—50 cents
520 A Story of Topsoil in the Northeast—50 cents
562 Wildlife Management Through Soil Conservation in the Northeast—50 cents
585 Frontiers of Grass—55 cents

NOTE: For film strips on soil erosion problems in specific states consult the catalogue

obtainable from the U. S. Department of Agriculture, Extension Service, Washington, D.C.

State Government Departments and Agencies

The following agencies will send film strips, usually on a loan basis and free, to schools within their boundaries.

Delaware State Board of Education, Dover, Del.

Florida Forest and Park Service, Tallahassee, Fla.

Ohio State Department of Education, Visual Instruction Exchange, Columbus, Ohio

Oregon State System of Higher Education, Department of Visual Instruction, Corvallis, Ore.

Wisconsin Conservation Dept., State Capitol, Madison, Wis.

EDITORIAL NOTES AND NEWS

O. E. BAKER, after thirty years in the United States Department of Agriculture, is leaving his present position of Senior Social Scientist in the Division of Farm Population and Rural Welfare to become Head of the Department of Geography in a new Institute being established at the University of Maryland, bearing the tentative title, "Institute of World Economics and Politics." The purpose of the Institute is to train men and women for administrative and technical positions, both governmental and private, in foreign countries after the war. The Institute will include departments in Modern Languages, Political Science, Economics, Military Tactics, Psychology, History, Geography, and International Trade. Except for the last two departments named, existing university departments will be expanded to offer instruction in the above subjects. It is expected that formal or informal co-operation will be arranged with several governmental departments, and that students in the Institute will study some of the problems which these governmental departments are facing. The teachers will hold consultant or other positions in departments of the Federal Government.

In the Department of Geography about half the work will be research and half teaching. The students in the Institute will be college graduates, except that undergraduate courses may be offered by the professors in order to develop prospective graduate students. In the Department of Geography there will be a professor specializing in Latin America; another in North America, excluding Mexico; another in Europe, excluding the U.S.S.R.; another specializing in Eastern and Southern Asia, who may temporarily include the Soviet Republic in his field. Included in this Department also will be a cartographer, one or more research assistants, and a number of student assistants. Mr. Baker will teach the courses in North America. The appointments of professors to teach the geography of the other continents have not been announced.

Courses will not be offered until the second semester and the Institute will probably not be in full action until the next school year. Meanwhile, research work is being undertaken in South America, looking forward to the publication of two atlases relating to this continent, one for school use and the other for the use of business firms and governmental agencies. It is expected that atlases covering the other continents will follow, in the course of time.

The Inter-American Society of Anthropology and Geography was founded January 1, 1943. The objectives as released by the Secretary, Ralph L. Beale, Smithsonian Institution, are: the interchange of information and views among scientists interested in the cultures of the Americas; the formulation of research problems and development of scientific methods and objectives in anthropology, geography, and related social science

research in the Americas; the promotion of Inter-American co-operation in these fields; and the encouragement of publication. The Society will publish a quarterly review, the first issue of which will appear early in 1943. A Temporary Organizing Committee in close co-operation with Latin American groups will operate the affairs of the Society until a reasonable number of Charter members has been secured who will take over the operation of the Society. Dr. Preston James, geographer, University of Michigan, is a member of this committee. Applicants for membership should apply to the Secretary. Besides the individual memberships, organizations and institutions may become affiliated upon payment of dues which are $3.00 a year. Temporary facilities are provided by the Smithsonian Society.

DR. ROBERT HALL, geographer at the University of Michigan, is Chief of the West Coast Branch of the Office of Strategic Services, Washington, D.C. During his absence from the University, his classes on Asia are being taught by Douglas D. Crary, who accompanied Dr. Hall on three of his visits to the Far East while making his field studies there.

The United States Department of Agriculture recently announced that during its past fiscal year various members of its staff obtained patents on fifty-four inventions helpful to agriculture. Some are of direct importance in meeting wartime production needs. These inventions include insecticides, fungicides, improved smokeless orchard heaters, processes for handling resinous products, a process of obtaining sugar from sorghum juices—only to mention a few. To C. Warren Thornthwaite is credited a device for providing a continuous record of the moisture concentration of the atmosphere.

An increasingly large motor and truck traffic is using the asphalted highway from Lima to Oroya, which connects the Pacific port of Callao with Peru's great copper mining and smelting region. The Andes are crossed at an altitude greater than 16,000 feet. The Peruvian government is pushing the extension of this highway eastward to Pucallpa on the Ucayali River where vessels of 3,000 tons provide connection with Iquitos which is 600 miles downstream on the Amazon. The east section of this highway traverses the deep valleys and ranges of the eastern Andes.

DR. ESTHER S. ANDERSON of the University of Nebraska, is now serving as Geographer in the Geographic Section of the Military Intelligence Service of the War Department, Washington, D.C.

DR. CHAUNCY D. HARRIS of the University of Nebraska, is now serving as Geographer in the State Department in Washington, D.C. There are now between one hundred seventy-five and two hundred geographers serving the Federal Government in Washington, D.C.

GEOGRAPHICAL PUBLICATIONS

Ruth Wood Gavian: **Education for Economic Competence in Grades I to VI.** 190 pp. Bureau of Publications, Teachers College, Columbia University, New York. 1942. $2.10.

After devoting two chapters to the statements of introduction and purpose and procedures of the study, chapter headings in "Education for Economic Competence in Grades I to VI" include the following topics: Objectives Bearing on Economic Competence, Topics in General and Social Studies Courses and Their Contribution to Education for Economic Competence, Topics Bearing on Economic Competence Found in Arithmetic and Science Courses, Conclusions and Recommendations. An excellent bibliography is included.

Careful study of this publication by educators is strongly urged. It should be given serious consideration by all those who participate in the writing of elementary courses of study. It contains valuable suggestions for school executives and supervisors. Teachers of elementary grades I to VI will find the book helpful.

The author mentions courses now in use in certain cities and states which, in her opinion after this thoro investigation, make the best provision for education for economic competence in grades I to VI.

This publication sets up what one may term a standard by which a superintendent or a classroom teacher may measure the strengths or weaknesses of the course being used.

ANNA C. LARSON

State Teachers College
St. Cloud, Minnesota

Nicholas John Spykman. **America's Strategy in World Politics.** 500 pp., six maps. Harcourt, Brace and Company, New York. 1942.

In this volume, Professor Spykman has made a thoro analysis of the field of geopolitics from the American point of view. The book deals first with the role of the United States in relation to the "Balance of Power," and second with the struggle for South America. In Part I an excellent analysis of America's role in "Power Politics" is considered under the title "From Monroe Doctrine to Hemisphere Defense," which gives a concise review of American History, and shows that the fundamental principles of political geography have been in operation within the United States of America since the establishment of the Republic. Particularly outstanding in Part II are the chapters on "The Military Front," and "Hemisphere Defense." Here the author pictures the United States and the Western Hemisphere in relation to its Atlantic and Pacific defense, and discusses the possibilities of invasion. These chapters, together with the conclusion on "America's Position in the Post-war World," should be studied by all statesmen who participate in the writing of the peace at the close of World War II.

The illustrations leave one with a feeling of regret that more maps were not included. Those showing the Pacific and Atlantic defenses are unusually good, but the maps of Hemisphere Defense drawn on the Azimuthal projection gives the reader a distorted view of the appearances of the major land masses. The reviewer wonders if this type of projection is any improvement on the one designed by Mercator in the 16th Century.

Because it presents one of the most complete geo-political surveys of the role of the United States in the conduct of the war and in the peace that must follow, *America's Strategy in World Politics* should be read carefully by every student of geography and by every intelligent adult citizen of the United States.

EDWIN J. FOSCUE

Southern Methodist University

NEW PUBLICATIONS

Elizabeth B. Drewry. **Historical Units of Agencies of the First World War.** Bulletins of the National Archives, Number 4. Publication No. 21. 31 pp. Division of Information and Publications, National Archives, Washington, D.C. 1942.

A brief account of what was done to preserve for the future the important records and files of the accomplishments of the various agencies engaged in the successful prosecution of the war.

The Future of Transportation. Director of the study: Ralph J. Watkins. 43 pp. The National Resources Planning Board. U. S. Government Printing Office, Washington, D.C. 1942.

A summary of the larger report on "Transportation and National Policy" submitted to the President. One of a series of pamphlets on Post-War Planning.

Australia and New Zealand—Theatres of War, Series I, No. 2. 16 pp. Issued by the Institute of Adult Education, Teachers College, Columbia University. Bureau of Publications, Teachers College, Columbia University, N.Y. 1942. 10 cents.

A simple presentation of factual material for adults.

Getting Acquainted with Our Soil. 12 pp. Illustrated. Soil Conservation Service, Washington, D.C. 1942.

A preliminary unit with instructions for setting up tests plots for measuring the effect of rainfall on various types of cover crops.

Martin Birnbaum. **Vanishing Eden: Wanderings in the Tropics.** 201 pp. Illustrated. William E. Rudge's Sons, New York, 1942. $5.00.

This book is the work of an artist. The author presents a delightful account of his travels in the South Seas, Africa, Asia, and Central America. Photographs and drawings by the author provide abundant illustrations that add much to the full appreciation of the accounts.

Tahiti, Fiji, and Samoa were visited in 1926. The reader is taken to these little-known islands and given a very vivid picture of the art, the social standards, and economy of these Polynesian peoples. The author shows his rich background of natural history in the splendid descriptions of the vegetation of these islands.

In 1937 the author traveled over the Sahara to Kano. His account of travel across the desert is truly realistic. From his intimate experiences with the pygmies and other natives of the Belgian Congo, the reader gains a clear understanding of their ways of living in the tropical forests. The author's insight into the art of these forest peoples adds much to the presentation. The ascent of Nyamlagira is very vividly portrayed.

The 1935 visit to Bali is equally well described. One of the most interesting accounts is that of the journey to Yunnan Fu on the Burma Road in China.

The final travel to Central America in 1938-1940 was concerned largely with investigating Mayan art and civilization.

Altho not a geography, this book furnishes much of the realistic material on these little known parts of the world needed by college students. This beautiful work should be welcomed for supplementary reading.

EDNA E. EISEN

Kent State University